

REMARKS

1. Restriction Requirement

As a result of the requirement for restriction that was issued in the present application on February 25, 2002, non-elected claims 9 through 17 are now withdrawn from examination without prejudice to their reintroduction. Applicants intend to pursue the subject matter of these claims in a continuing patent application.

2. Definiteness

Claim 3 has been rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Accordingly, claim 3 is amended herein to delete the term “partially or highly”, which was stated in the Official Action to render the claim indefinite. In addition, as suggested in the Official Action, the phrase “(including melamine formaldehyde with imino functionality, methylol functionality and partially or highly alkoxy methyl functionality)” is now amended to proper Markush form.

These amendments are purely formal and unrelated to patentability. Accordingly, they neither introduce new matter into the application nor affect the scope of the claim.

In this connection, Applicants note that no other rejection of claim 3 is outstanding; accordingly, an early indication that the subject matter of newly amended claim 3 is patentable is earnestly solicited.

Claim 5 is also asserted to be indefinite because of the open-ended numerical range “greater than 150”. First, Applicants presume that this rejection was intended for claim 7, which includes this phrase, rather than claim 5, which does not. Second, the Official Action appears to propose that open-ended numerical ranges are indefinite *per se*. This is not the position that is set forth in

the Manual of Patent Examining Procedure (M.P.E.P.), however. See, for example, M.P.E.P. § 2173.05(c)(II), which states that “Open-ended numerical ranges should be carefully analyzed for definiteness.” [*Emphasis supplied.*]

Applicants respectfully submit that the phrase “the laminar mineral platelets have an aspect ratio greater than 150” in claim 7 is not indefinite, because those of ordinary skill in the art, once equipped with the teachings of the specification, can understand the scope of this claim with reasonable clarity. Significantly, a definition of the term “aspect ratio” and instructions on how to calculate the aspect ratio appear in the specification on page 6 at lines 9 through 15.

Accordingly, Applicants respectfully request that the rejections under 35 U.S.C. § 112 be withdrawn upon reconsideration.

3. Obviousness

Turning now to substantive matters, the Official Action dated January 9, 2006, has rejected claims 1, 2, and 4 to 8 under 35 U.S.C. § 103 as obvious over U.S. Patent No. 5,766,751, issued to Kotani et al. (hereinafter “Kotani”) in view of U.S. Patent No. 5,234,761 issued to Barnes et al. (hereinafter “Barnes”). Claim 4 has also been rejected as obvious over Kotani in view of U.S. Patent No. 5,571,614, issued to Harrison et al. (hereinafter “Harrison”).

These are the sole substantive reasons set forth in the Official Action why claims 1, 2, and 4 to 8 should not be allowed. Applicants respectfully traverse these rejections for the reasons set forth below.

Claim 1, as amended herein, now specifically recites the feature that the second layer is a required element of claim 1. A basis for this amendment can be found in the specification on page 2 at lines 6 to 10 and in

the claims as originally filed, for example. Accordingly, this amendment introduces no new matter into the specification.

Parenthetically, the assertion in the Official Action that the second layer is optional in the polymeric container of claim 6 has been rendered moot by the amendments to claim 1 presented herein.

In light of the present amendments to claim 1, the subject matter sought to be patented includes a polymeric rigid container for foods and beverages having two applied coating layers. The first layer is derived from an aqueous solution of an organic resin and montmorillonite, laponite, or organo-modified montmorillonite. The second clear layer is derived from a reactive “curable” composition comprising a binder component in an organic solvent. Moreover, the claimed invention is an improvement in that a clear polymeric bottle or food container made with the claimed chemistry will lead to improved recyclable polymer without sacrificing the desired vapor barrier properties. The concept of providing a recyclable type resin is of pragmatic value in contemporary commercial production and end use applications.

The laminate described by Kotani, in contrast, comprises a base material, which may be polymeric (col. 16 at lines 1 to 25), and a layer comprising a substance having a gas barrier property disposed on the base material. The coating comprising the inorganic laminar compound is disposed on the gas barrier layer. The laminate structure is described in col. 3 at lines 17 to 32 and in col. 15 at lines 1 to 59; the description of the substance with gas barrier properties begins in col. 13 at line 17. The laminate described by Kotani is plainly not Applicants’ claimed polymeric container.

The coatings described by Barnes are simply inapposite to the present invention. First, although Applicants’ first coating layer may optionally

contain a melamine formaldehyde resin as a cross-linking agent (subject matter of claim 2), it is required to contain a water-soluble or water-dispersible organic binder. There is no teaching or suggestion whatsoever in Barnes that the polymeric binder should be water-soluble or water-dispersible, however. Applicants believe that a coating that sloughs off in water might be disadvantageous in the aerospace vehicles for which Barnes has designed his coating.

Moreover, those of skill in the art would have no motivation to combine Barnes with Kotani, because the two forms of gas barrier properties described in these documents are not analogous or even related. Kotani is concerned with the permeability of the laminated structure to atmospheric, molecular oxygen. Barnes, in contrast, describes a coating that is resistant to reactivity with atomic oxygen encountered by aerospace vehicles in orbit. These two properties are completely uncorrelated, however. For example, a latex balloon is both permeable to molecular oxygen and reactive with atomic oxygen.

Finally, Harrison does not describe the basecoat and topcoat structure that is specifically recited in claim 1 as amended. Furthermore, there is no teaching or suggestion whatsoever in Harrison that the cross-linking agent or the olefin comonomer (col. 4 at lines 33 to 40) can or should be water-soluble or water-dispersible.

Therefore, none of Kotani, Barnes, and Harrison, taken alone or in combination, render newly amended claim 1 obvious. Therefore, it is respectfully requested that the rejections of claim 1 under 35 U.S.C. § 103 be withdrawn upon reconsideration.

Claims 2 and 4 to 8 depend, directly or indirectly, from independent claim 1. It follows by statute that the dependent claims are also not obvious over

Kotani, Barnes, and Harrison for at least the reasons set forth above with respect to newly amended claim 1. Consequently, Applicant respectfully requests that the rejections of claims 2 and 4 to 8 under 35 U.S.C. § 103 be withdrawn upon reconsideration.

Conclusion

A Petition for an Extension of Time for two months and the required fee for the extension are filed concurrently herewith. Should any further fee be required in connection with the present response, the Examiner is authorized to charge such fee, or render any credit, to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

In view of the above amendments and remarks, it is felt that all claims are in condition for allowance, and such action is respectfully requested. In closing, the Examiner is invited to contact the undersigned attorney by telephone at (302) 892-1004 to conduct any business that may advance the prosecution of the present application.

Respectfully submitted,



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